Amendments to the Specification

Please amend the specification as follows:

Please replace paragraph [0093] with the following amended paragraph:

[0092] The electrophoresis apparatus of FIG. 7 employs multiple separation capillaries or channels for sample concentration, but only one outlet capillary for sample detection. This coordinated separation by individual capillaries may be sequentially activated and controlled by well-known electronic circuitry. Like the FIG. 1 embodiment, preceding analytes are completely separated and detected before the next separation operation is activated. FIGS. 7 and 8 also show a container or reservoir 92 which can function as a waste collector of the separated target analytes.

Please replace paragraph [0123] with the following amended paragraph:

[0123] FIG. 14 illustrates that the transport channel 24A and separation channels 28A, 30A and 32A, for the electrophoresis apparatus 10 may be formed with uniform and concave shapes that are engraved, etched or otherwise formed into a glass or plastic microchip using known lithography or other manufacturing techniques. Analyte concentrators 34A, 36A and 38A are disposed at the respective intersections of transport channel 24A and separation channels 28A, 30A and 32A with the valving system 100 to control the flow of fluid and microenvironment to each of the concentrators [[24A]] 37A, 36, and 38 as previously described. Near the detector 66, valves may be provided to control of fluid to the output capillary 66 from the plurality of separation capillaries. FIG. 15 illustrates that each concentrator formed by intersection of transport and separation channels may be surrounded by valves to control the flow of liquid through the transport channel 24A and the corresponding separation channel.

Please replace paragraph [0124] with the following amended paragraph:

[0124] FIG. 16 illustrates a perspective view of an electrophoresis apparatus 10 having a transport channel 24A and a plurality of separation channels 28A, 30A, 32A, and etc. Near the outlet side of the separation channels, a detector 86 may be provided that aligns with one of the detection windows of the separation channels to detect the analyte passing through the respective separation channels sequentially. To simultaneously detect the analytes passing through all of the separation channels, a detector may be provided for each separation channel to speed up the process. Reference numeral 17a shows an analyte

concentrator positioned differently than analyte concentrator 17 in FIG. 1, for example.

Please replace paragraph [0141] with the following amended paragraph:

[0141] FIG. 23B illustrates generally at 170 polymeric microstructures with Y shape antibody having affinity for a particular analyte within the concentrator area without the need for frits. Each beaded microstructure may have an antibody that has affinity for a different analyte.

Please replace paragraph [0142] with the following amended paragraph:

[0142] FIGS. 24A and 24B illustrate the use of an antibody at 140A, 150A and 160A like Fab' as described above. In contrast to the antibodies shown in FIGS. 23A and 23B, these Fab' antibodies have one side of the original antibody. The antibodies are attached to the substrate by a portion of the original stem, allowing each group of antibodies to retain their specificity, attracting and bonding to only one type of analyte.